LCR Hallcrest Ltd.
Riverside Buildings, Dock Road,
Connah's Quay, Flintshire,
CH5 4DS U.K.
Tel: +44 (0)1244 817107
Fax: +44 (0)1244 818502
Email: sales@lcrhallcrest.com
Web: www.lcrhallcrest.com

Advanced Thermographic Technologies

GAS LEVEL INDICATOR

Liquid Crystal Gas Level Indicating Products

Instructions for Use

How to Read

1) Ensure the surface of the tank is wiped clean and dry before placing indicator on a level area near the bottom of the tank.
2) Avoid putting the indicator across a weld.
3) Avoid placing indicator in direct sunlight.
4) The indicator should show bars all of the same colour vertically.
5) Switch the gas appliance on and then allow approx. 5 to 10 minutes before taking a reading.
6) After this period, a colour change of the vertical bars will show the gas level is within the area where the indicator has been placed at the bottom of the cylinder and that the gas level is low.
7) If the gas level is above where the indicator is placed, the vertical bars will remain the same colour.

Note: any colour changes between horizontal adjacent bars should be ignored.

- It is only colour changes on the vertical bars that indicate the gas level
- The Gas Level Indicator can be used on any propane, butane or mixed fuel gas cylinders.
- The Indicator is 114 x 50mm and available with adhesive or magnetic backing so it can be attached to the outside of gas cylinders.
- The Indicator has been mainly designed as a warning device which shows the gas bottle is running out and should be placed near the bottom of the cylinder.

Background / How it works:

On the label, each vertical bar is a different temperature liquid crystal (LC) mixture.

There are 12 LC bars in total which ensures that whatever the ambient air temperature (where the bottle is stored), there will always be at least one LC bar showing colour. When gas is discharged from the cylinder (i.e. being used) the liquid changing to gas inside the bottle causes cooling which creates a noticeable temperature difference on the cylinder's surface, above and below the liquid level.

The cooling is caused by the gas absorbing heat energy from the cylinder and its surroundings as it changes from a liquid (under pressure) to a gas. The LC bar is highly temperature sensitive and is able to indicate the change in temperature by changing colour vertically (blue to green to red) and show where the liquid gas level is. If the LC bar shows a constant colour the gas liquid level is above (or below) where the indicator has been placed.